AMENDMENT TO THE CLAIMS

Please replace the presently pending claims with the following amended claims:

1. (Currently Amended)   A process of assigning objects to points of a first rectangle comprising steps of:

a) creating an initial object assignment to points of the first rectangle with an initial assignment procedure, comprising:

al) calculating a maximal cost of assignment of objects to points of the first rectangle, and

a2) selecting an assignment of objects having a minimum value of the maximal cost;

b) dividing the first rectangle into a plurality of second rectangles; and

c) applying an object assignment procedure, which is different than the initial object assignment procedure, to the initially assigned objects in each second rectangle.

2.   Canceled.

3. (Currently Amended)   The process of ~~claim 2~~ claim 1, wherein step a2) comprises:

calculating an initial ~~maximal matching~~ assignment based on a relationship of cost values at each point of the first rectangle to a ~~midpoint to~~ midvalue of the maximal cost.

4. (Currently Amended)   The process of claim 3, wherein step a2) further comprises:

recalculating minimal and maximal costs based on the calculated ~~maximal matching~~ initial assignment, and

recalculating the ~~maximal matching~~ initial assignment based on a ~~midpoint~~ midvalue between the recalculated minimal and maximal costs.

5. (Currently Amended)   The process of claim 4, wherein step a2) further comprises:

iteratively repeating recalculation of minimal and maximal costs and the ~~maximal matching~~ initial assignment until the minimal cost is not smaller than the maximal cost.

6. (Currently Amended)   The process of ~~claim 2~~claim 1, wherein step a2) comprises:

calculating a minimum cost, maximum cost and a middle cost based on a ~~midpoint of~~midvalue between the minimum and maximum costs,

calculating maximal assignment for a matching matrix

$$d(i,j) = \begin{cases} 1 & if & \overline{C}(i,j) \le middle\ cost \\ 0 & if & \overline{C}(i,j) > middle\ cost \end{cases},$$

where $\overline{C}(i,j)$ is a rounded cost value for each for assignment of i objects to j points,

if a maximal assignment is found having a cost no greater than the middle cost, re-set the maximum cost equal to the middle cost, otherwise re-set the lower cost to greater than the middle cost,

repeat finding maximal assignment and re-setting of minimum and maximum costs until the minimum cost $\ge$ the maximum cost.

7. (Original)   The process of claim 1, wherein the dividing of the first rectangle is performed so that each point in the first rectangle is in at least two second rectangles.

8. (Original)   The process of claim 1, wherein the object assignment procedure is application of Kuhn's algorithm.

9. (Original)   The process of claim 1, wherein step c) comprises, for each second rectangle:

c1) finding objects assigned to points of the second rectangle, and

c2) adjusting the initial assignment of objects in the second rectangle using Kuhn's algorithm of object assignment.

10. (Original)   The process of claim 9, further comprising:

iteratively repeating step c) until occurrence of a predetermined event.

11. (Original)   The process of claim 1, further comprising:

iteratively repeating step c) until occurrence of a predetermined event.

12. (Currently Amended)   A computer useable medium having a computer readable program embodied therein for assigning objects to points of a first rectangle, the computer readable program comprising:

first computer readable program code for causing the computer to calculate a maximal cost of assignment of objects to points to the first rectangle and create an initial object assignment to points of the first rectangle, which has a minimum value of the maximal cost;

second computer readable program code for causing the computer to divide the first rectangle into a plurality of second rectangles; and

third computer readable program code for causing the computer to create an object assignment of the initially assigned objects in each second rectangle to points in the second rectangle, using an object assignment algorithm that is different than that used to create the initial object assignment.

13. Canceled.

14. (Currently Amended)   The computer useable medium of ~~claim 13~~ claim 12, wherein the first computer readable program code comprises:

computer readable program code for causing the computer to ~~calculating~~ calculate an initial ~~maximal matching~~ assignment for a matching matrix that is based on a relationship of cost values at each point of the first rectangle to a ~~midpoint to~~ midvalue of the maximal cost.

15. (Currently Amended)   The computer useable medium of claim 14, wherein the first computer readable program code further comprises:

computer readable program code for causing the computer to ~~recalculating~~ recalculate minimal and maximal costs based on the calculated ~~maximal matching~~ initial assignment, and

computer readable program code for causing the computer to ~~recalculating~~ recalculate the ~~maximal matching~~ initial assignment based on a ~~midpoint~~ midvalue between the recalculated minimal and maximal costs.

16. (Currently Amended)   The computer useable medium of claim 15, wherein the first computer readable program code further comprises:

computer readable program code for causing the computer to iteratively repeat recalculation of minimal and maximal costs and the ~~maximal matching~~ initial assignment until the minimal cost is not smaller than the maximal cost.

17. (Currently Amended)   The computer useable medium of ~~claim 13~~claim 12,. wherein the first computer readable program code comprises:

computer readable program code for causing the computer to calculate a minimum cost, a maximum cost and a middle cost based on a ~~midpoint of~~ midvalue between the minimum and maximum costs,

computer readable program code for causing the computer to calculate a maximal assignment for a matching matrix

$$d(i,j) = \begin{cases} 1 & if & \overline{C}(i,j) \leq middle\, cost \\ 0 & if & \overline{C}(i,j) > middle\, cost \end{cases},$$

where $\overline{C}(i,j)$ is a rounded cost value for each for the assignment of i objects to j points,

computer readable program code for causing the computer to reset the maximum cost equal to the middle cost if the maximal assignment has a cost not greater than the middle cost, and to reset the minimum cost to an amount greater than the middle cost if the maximal assignment has a cost greater than the minimum cost, and

computer readable program code for causing the computer to iteratively repeat calculating the maximal assignment and re-setting the minimum and maximum costs until the minimum cost is not smaller than the maximum cost.

18. (Original)   The computer useable medium of claim 12, wherein the computer readable program code that causes the computer to divide of the first rectangle causes the computer to place each point of the first rectangle in at least two second rectangles.

19. (Original)   The computer useable medium of claim 12, wherein the third computer readable program code causes the computer to execute Kuhn's algorithm.

20. (Original)   The computer useable medium of claim 12,

wherein the third computer readable program code comprises, for each second rectangle:

computer readable program code for causing the computer to find objects assigned to points of the second rectangle, and

computer readable program code for causing the computer to execute Kuhn's algorithm to re-calculate the assignment of objects in the second rectangle.

21. (Original)   The computer useable medium of claim 20, further comprising:

computer readable program code for causing the computer to iteratively repeat execution of the computer readable program code for executing Kuhn's algorithm until occurrence of a predetermined event.

22. (New) A process of assigning objects to points of a first rectangle comprising steps of:

a) creating an initial object assignment to points of the first rectangle with an initial assignment procedure, comprising:

b) dividing the first rectangle into a plurality of second rectangles so that each point in the first rectangle is in at least two second rectangles; and

c)   applying an object assignment procedure, which is different than the initial object assignment procedure, to the initially assigned objects in each second rectangle.